

out in the last response. Claims 1 and 4 have been amended accordingly.

The rejection of claims 1 to 6 and 11 to 14 under 35 USC 103 as allegedly unpatentable over abstract 113:102645 CA in view of Eberly, Jr. et al. '488 is respectfully traversed.

The Examiner acknowledges that the primary reference contains no mention of Si/Al ratio in the zeolite and relies upon the secondary reference in support of the position that it was well known in the zeolite art to use high Si/Al ratios, such as 50, because such ratios are desirable for high temperature conversions since products with such ratios have increased thermal stability. The Examiner specifically mentioned column 2, lines 41 to 45 and column 5, lines 2 to 5 of that reference.

It was then stated in the Final Rejection that, since zeolite compositions are desirably thermally stable for an exhaust gas treatment process where high temperatures are involved, one of ordinary skill in the art would have used a high Si/Al ratio in the exhaust gas composition of the primary reference "because it is known in the art that zeolites with a high silica/alumina ratio display increased thermal stability."

Applicants respectfully traverse the conclusions drawn by the Examiner because more is being extracted from the secondary reference than is warranted. Indeed, the Eberly, Jr. et al. '488 reference describes a necessary range of a silica/alumina mole ratio (not an Si/Al atomic ratio) for using a catalyst in the field

of oil reforming and not in the different and unique field of automobile exhaust gas treatment. In the latter field, one needs to take into consideration not just heat resistance characteristics but other characteristics having a significant impact on the system, such as hydrophobic characteristics. The Examiner's attention is directed to page 9, lines 16 to 20 of the specification stating that a Si/Al ratio less than 40 gives a zeolite with "insufficient heat resistance and increased hydrophilicity. As a result, it shows high adsorbability for the water contained in exhaust gas, which is not preferable."

During the course of oil reforming, it is not necessary to take hydrophobic characteristics into consideration. Therefore, in selecting the most suitable range of a Si/Al atomic ratio for automobile exhaust gas treatments, both heat resistance characteristics and hydrophobic characteristics must be chosen carefully because they are not relatively insignificant factors as they are in the case of oil reforming catalysts. Accordingly, applicants respectfully submit that one of ordinary skill in the art would not look to the secondary reference for any teaching or suggestion of what Si/Al atomic ratio is effective in the purification of automobile exhaust gas. It is believed apparent that the secondary reference is restricted to hydrocarbon conversions; see, for example, column 5, lines 17 to 25 and 43 to 45 and claims 1 to 14 thereof. The disclosure at column 2, lines 39 to 44 about "general catalytic or adsorptive uses" again

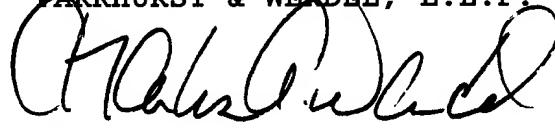
concerns only heat stability. Much more has to be taken into consideration when assessing effectiveness in automobile exhaust gas purification operations. The rejection should be withdrawn.

In view of the foregoing revisions and remarks, it is respectfully submitted that claims 1 to 6 and 11 to 14 are in immediate condition for allowance and a Patent and Trademark Office paper to those ends is earnestly solicited.

The Examiner is requested to telephone applicants' attorney at the number appearing below if further changes are required prior to allowance.

Respectfully submitted,

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